

III. REMARKS

Claims 1-35 are pending in this application. By this Amendment, claim 1 has been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

Entry of this Amendment is proper under 37 C.F.R. §1.116(b) because the Amendment: (a) places the application in condition for allowance as discussed below; (b) does not raise any new issues requiring further search and/or consideration; and (c) places the application in better form for appeal. Accordingly, Applicants respectfully request entry of this Amendment.

1. 35 U.S.C. 101 rejections

In the Office Action, claims 1-6 and 12-18 are rejected under 35 U.S.C. 101 because the claimed invention is allegedly directed to non-statutory subject matter. Specifically, with respect to claim 1, the Office alleges that “the optimization of the floor schedule based on sensitivity data ... is considered to include mathematical algorithm that have not been incorporated in any computer readable medium to produce a useful, concrete and tangible result.” (Office Action at page 3). Claims 2-6 are rejected because of their references to claim 1. Applicants respectfully disagree because the claimed method outputs a useful, concrete and tangible result and controls a specific process. Specifically, the claimed floor schedule “indicates the specific tools, activities, etc., that are to be used in the assembly of a device or assembly lot.” (¶0032 of the current

application). The optimization of the floor schedule is thus useful to be used in the tangible process of assembly to produce concrete results, e.g., devices. That is, the optimization of the floor schedule controls the assembly process which is tangible and concrete. In view of the foregoing, claim 1 is statutory.

Nevertheless, by the current Amendment, claim 1 has been amended to clarify the above features. In view of the foregoing, Applicants respectfully request withdrawal of the rejection of claims 1-6

With respect to claim 12, the above arguments also apply. In addition, with respect to claim 16, the Office asserts that the “computer usable medium” is considered to include transitory waves and carrier waves which are not patentable. (Office Action at page 3, *citing* O’Reilly v. Morse (15 How) 62 (1854).) Applicants submit that even if the medium is considered to include tangible carrier waves, it is statutory because tangible carrier waves are statutory articles. In addition, please note, the “signal” claim 5 of O’Reilly v. Morse was found statutory by the Supreme Court. In addition, Applicants respectfully submit that the previous Amendment already limited the computer usable medium as a tangible medium, which in turn limits the claimed invention as including tangible carrier waves. As such, Applicants submit the claimed invention is protectable.

2. 35 U.S.C. 102(e) rejection

In the Office Action, claims 1-2, 4, 7-10, 12-16, 18-21, 23-24, 26-27 and 39-31 are rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Chong et al. (USPN 6,842,661), hereinafter “Chong.” Applicants respectfully traverse this rejection because Chong does not

disclose each and every claimed feature. For example, with respect to independent claims 1, 12, 19 and 26, Chong does not disclose, *inter alia*, “optimizing the floor schedule based on sensitivity data of the device[.]” (Claim 1, similarly claimed in claims 12, 19 and 26). Chong only discloses detecting “data relating to the electrical characteristics of various interconnect locations” (col. 5, lines 11-13), “interconnect characteristics” (col. 5, line 60), barrier layer position and characteristics of a contact formed in a trench and characteristics of the trench 540 (*see*, col. 6, lines 20-26), and “physical or electrical characteristics of the devices formed across the semiconductor wafer 105” (col. 8, lines 51-52). None of the above disclosures include sensitivity data. Note that sensitivity refers to a degree of change in one thing in response to a unit amount of change in another thing. (*See, e.g., The American Heritage[®] Dictionary of the English Language, Fourth Edition*, sensitivity is “the degree of response of a receiver or instrument to an incoming signal or to a change in the incoming signal[.]” Chong does not disclose collecting such sensitivity data. As such, Chong does not disclose optimizing a floor schedule based on sensitivity data of the device. In view of the foregoing, Chong does not anticipate the claimed invention. The dependent claims are believed allowable for the same reasons, as well as for their own additional features.

In the Office Action, the Office lists disclosures of Chong to assert that Chong discloses “data involving risk factors of the device”. (Office Action at pages 20-21). Specifically, the Office asserts that the disclosed “electrical characteristics” in Chong are equivalent to “data involving risk factors of the device” in the claimed invention. Applicants respectfully disagree because data involving a risk factor of the device refers to a change in a variable in response to a change in another variable (i.e., the exposure to a risk factor). Note that a risk factor is evaluated by comparing the risk of those exposed to the potential risk factor to those not exposed. For the

meaning of a risk factor, please see http://en.wikipedia.gov/Risk_Factor. The cited portions of Chong, and the disclosure of Chong as a whole, do not include data involving risk factors of the device. For example, the “predetermined resistivity value for particular interconnect locations”, the “physical or electrical characteristics”, or “interconnect characteristics” are not data involving risk factors because they do not refer to a change in a variable in response to the exposure to a risk factor. In view of the foregoing, Applicants respectfully request withdrawal of the rejections.

3. 35 U.S.C. 103(a) rejections

In the Office Action, claims 3 and 28 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Chong in view of Kraz (US Pub. No. 2004/0082083); claims 11-12 and 32-35 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Chong in view of Miller (USPN 6,535,783); claims 5 and 17 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Chong in view of Conboy (USPN 6,711,450); claim 6 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Chong in view of Conboy and further in view of Shirley (USPN 6,351,684); and claim 25 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Chong in view of Miller and further in view of Conboy. Applicants respectfully traverse these rejections.

With respect to independent claim 32, the arguments regarding claims 1, 12, 19 and 26 also apply as Chong does not disclose or suggest, *inter alia*, “generating sensitivity data for a device[.]” (Claim 32). Applicants submit that Miller does not overcome, *inter alia*, this deficiency of Chong. As such, the suggested combination of Chong and Miller does not make the claimed invention obvious.

The dependent claims are believed allowable based on their allowable base claims, respectively, as well as for their own additional features.

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

/Spencer K. Warnick/

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Spencer K. Warnick
Reg. No.: 40,398

Hoffman, Warnick & D'Alessandro LLC
75 State Street, 14th Floor
Albany, New York 12207
(518) 449-0044
(518) 449-0047 (fax)